



South Coast Air Quality Management District

Engineering & Compliance

*Policies &
Procedures*

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

MEMORANDUM

DATE: September 5, 1986
TO: Engineering Division Technical Personnel
FROM: Sanford M. Weiss, Director of Engineering /s/ SMW
SUBJECT: New Source Review Calculations

The purpose of this memo is to give you information with respect to calculations dealing with the latest changes to New Source Review calculations and Rule 1306.

1. Background

Rule 1306 specifies how emission calculations are to be made with respect to threshold banking and offset evaluations. For equipment constructed after October, 1976, the basic method for emission changes for basic equipment is a rating-to-rating process. In other words, the emissions are calculated at the rating of the equipment before modification and compared to emissions at rating after modification (new equipment is, of course, calculated at rating). Changes in threshold or credit for offset are based simply on that comparison. When equipment was installed before October, 1976, the situation becomes substantially more complicated. It is particularly complicated for those items of equipment which involve installing items of equipment into existing permit units which decrease emissions but yet are considered to be modifications to the basic permit unit. As an example, installing low NOx burners into a boiler or heater is considered to be a modification to the basic permit unit, i.e., the boiler or heater.

2. Modifications to Equipment - General (Pre-1976)

Until recently, the New Source Review Regulation specified that a change to equipment installed before October, 1976 would be evaluated using actual operations compared to the maximum emissions after modification. In most cases this calculation process resulted in an apparent emission increase. As a result, applicants were frequently required to look for offsets and conduct modeling or canceled the project. Such an outcome discouraged persons from carrying out modifications to older equipment, and as a result, prolonged higher pollution levels that could have been reduced. In recognition of this situation, the District Board in September, 1986, modified Rule 1306 to add 1306(c)(3). That new Section requires that the calculation for equipment installed before October, 1976 be handled in 2 ways. With respect to the threshold determinations, the calculation is to be on a maximum-to-maximum basis. With respect to all other considerations, the calculation is to be on the basis of actual-to-

maximum emissions, as was previously the case. As stated earlier, the result is a somewhat complicated situation that this memo addresses for the purpose of giving you guidance in addressing those complications.

A second calculation is also required to establish whether a change in threshold has occurred. The calculation for the pre-1976 equipment is based on an evaluation of rating-to-rating emissions. Any increases shown by this calculation must be offset. Obviously, in the case of reductions such as due to low NOx burner installation, this circumstance will not occur.

3. Calculation Process (Pre-1976)

The calculation process for equipment installed before October, 1976 involves calculating the emissions at maximum conditions under the modified equipment circumstance and comparing that new situation to the actual emissions before modification. Those actual emissions are based on the 2-year emissions which are then averaged to a daily basis. If the maximum emissions after modification are less than the actual emissions, then an offset credit is available. If the maximum emissions after modifications are greater than the existing actual emissions, then no offset credit is available and the New Source Review file entry should be entered as zero for this application number. The purpose of the zero entry is to allow evaluations in the future with respect to these situations and, hence, entry must be made in the computer for data recording purposes.

4. Air Pollution Control Equipment

An additional consideration in New Source Review calculations concerns itself with situations where pollution control equipment installed in the discharge of basic equipment units. As an example, the use of SCR in the discharge of a boiler or heater. The New Source Review Regulation is silent with respect to the credit that can be granted for control equipment and this Section is intended to present an administrative procedure for that evaluation process.

In evaluating emission reductions as a result of installing control equipment, the emissions under the actual situation, i.e., the previous two-year average-to-daily emissions should be compared to the maximum emissions following installed control equipment. The difference, if any, between those two values represents the allowable emission reduction credit for any internal or external offsets.

5. Use of Conditions

In all of the cases listed above, there have been references to maximum emissions following modification. In some cases, the applicant may be willing to accept conditions which will limit operation of the equipment to throughputs and emissions which are below the maximum rated situation. Under that circumstance, and only under that circumstance, a comparison between actual may be appropriate. Such a condition may result in allowable offset credits provided that they are real and enforceable. Consultations with your supervisor and manager are appropriate to ensure that such conditions are reasonable and realistic.